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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,231	11/25/2003	Wei Guo	H0004345(4016)	4341
21567	7590	06/30/2005	EXAMINER	
WELLS ST. JOHN P.S. 601 W. FIRST AVENUE, SUITE 1300 SPOKANE, WA 99201			SHEEHAN, JOHN P	
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/720,231

Applicant(s)

GUO ET AL.

Examiner

John P. Sheehan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date September 27, 2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I claims 1 to 23 in the reply filed on April 25, 2005 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 4 to 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Lam et al. (Lam, EPO Document No. 1 041 170 A2).

Lam teaches nickel-vanadium sputtering targets including a specific example that is encompassed by the instant claims (page 5, Table 1, second column entitled, Ingot Sample).

Claim Rejections - 35 USC § 102/103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2 and 3 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lam et al. (Lam, EPO Document No. 1 041 170 A2).

As set forth above, Lam teaches nickel-vanadium sputtering target including a specific example that is encompassed by the claims 1 and 4 to 6 (page 5, Table 1, second column entitled, Ingot Sample). Based on the fact that Lam's Table 1 lists fluorine, chlorine, oxygen and nitrogen, which are all gases, it would appear that the purity level of Lam's specific example is based on the inclusion of gases. If, as recited in applicants' claims (e.g., claim 1, line 2), gases were excluded from the purity determination of Lam's sputtering target, the purity of the target in Lam's Table 1 would be purer than the 99.9909 % purity listed in Lam's Table 1 and would appear to encompass the purity levels of claims 2 and 3.

Further, Lam teaches that the V used to make the disclosed target has an actual purity level of 99.8 to 99.95 % and the Ni used to make the disclosed target has an actual purity level of 99.995 to 99.9997 (page 2, paragraph 0009). Using these purity levels and an alloy of 7% V and 93% Ni the following calculation determines the purity of a sputtering target product.

$$0.93 (99.9997) = 92.9996$$

$$0.07 (99.95) = \frac{6.9965}{99.9962\%}$$

or an alloy of 4% V and 96% Ni;

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$$0.96 (99.9997) = 95.9997$$

$$0.04 (99.95) = \frac{3.998}{99.9977\%}$$

These levels of purity are encompassed by applicants' claim 2.

Claim Rejections - 35 USC § 103

6. Claims 7 to 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lam et al. (Lam, EPO Document No. 1 041 170 A2).

Lam teaches and is applied as set forth above in the rejections under 35 U.S.C. 102 and 35 U.S.C. 102/103. Lam teaches a process for making the disclosed sputtering target (page 2, paragraph 0008 to page 3, paragraph 15). Lam's raw materials and process are encompassed by the raw material and process disclosed by the applicants (see the specification 7, paragraphs 26 to page 9, paragraph 29).

The claims and Lam differ in that Lam does not teach the crystal grain size recited in applicants' claims.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because Lam's raw materials and process are encompassed by the raw material and process disclosed by the applicants. In view of this, Lam's sputtering target would be expected to possess all the same properties as recited in the instant claims, including the purity and crystal grain size recited in applicants' claims, In re Best, 195 USPQ, 430 and MPEP 2112.01.

"Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either

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anticipation or obviousness has been established, In re Best, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' In re Spada, 15 USPQ2d 655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best, 195 USPQ 430, 433 (CCPA 1977)." see MPEP 2112.01.

This position by the Examiner is considered to be particularly valid in that applicants have not professed any criticality associated with the disclosed process of making the claimed sputtering target. For example, see paragraph 0029 of the specification wherein applicants disclose in very general terms that the ingot is subjected to thermo-mechanical processing to impart the desired grain size.

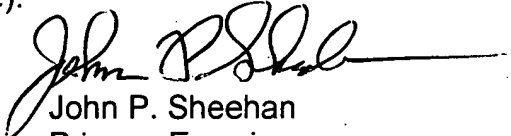
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John P. Sheehan
Primary Examiner
Art Unit 1742

jps